

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims, as follows:

Listing of Claims:

1 (currently amended). A coding method of an excitation vector of a stochastic codebook that is used in a speech coding apparatus and that is divided into a plurality of channels, the coding method comprising:

associating an excitation vector waveform candidate of a predetermined channel with ~~[[a]] waveform number of an excitation vector waveform candidate of another channel, or a~~ remainder operation result of a number representing an excitation vector waveform candidate of another channel used to acquire the waveform number;

searching for an excitation vector waveform that minimizes coding distortion using the associated excitation vector waveform candidate of the predetermined channel and the excitation vector waveform candidate of another channel; and

determining a code of the excitation vector of the stochastic codebook using a code of the excitation vector waveform obtained by the searching.

2 (previously presented). The coding method according to claim 1, wherein searching for an excitation vector waveform is comprises searching by a search algorithm of n-fold loops that changes an excitation vector waveform candidate within a loop in accordance with an excitation vector waveform candidate outside a loop, where n is a number of channels.

3 (original). The coding method according to claim 1, wherein a codebook is a stochastic codebook used in CELP.

4 (original). The coding method according to claim 3, wherein a stochastic codebook is an algebraic codebook, and an excitation vector waveform candidate is represented by a pulse position.

5 (canceled).

6 (previously presented). The coding method according to claim 1, wherein the remainder operation result is associated with an index of a pulse position candidate group indicating an excitation vector waveform candidate of a predetermined channel .

7 (previously presented). The coding method according to claim 1, wherein the remainder operation result is associated with a pulse position indicating an excitation vector waveform candidate of a predetermined channel.

8 (previously presented). The coding method according to claim 6, wherein association is performed by addition of remainder operation results.

9 (original). A speech coding apparatus that codes an excitation vector of a codebook by means of the coding method according to claim 1.

10 (original). A speech decoding apparatus that performs decoding of an excitation vector of a codebook corresponding to the coding method according to claim 1.